CLAIMS

1. Process for preparation of circularized recombinant nucleic acids of the type constituted of a vector and an insert, characterized in that:

a) ligation of the insert and the vector is implemented in the presence of a DNA compaction agent, and

b) the constituted recombinant nucleic acids of the vector and the insert are selected.

2. Process according to claim 1, characterized in that the circularized recombinant nucleic acids present a size greater than 5 kb, and preferably superior to 8 or 10 kb.

3. Process according to either one of claims 1 or 2, characterized in that step (b) is implemented by means of the transfer of the products obtained in step (a) into a cellular medium suitable for cloning DNA.

4. Process according to any one of the preceding claims, characterized in that step (a) is implemented in the presence of a DNA compacting protein or mixture of proteins.

5. Process according to claim 4, characterized in that said proteins are selected from among the histones, the viral or phage envelope proteins, the bacterial chromoid proteins (HU, H-NS, etc.), the non-histone chromosomal proteins, the HMGs, a mixture of these compounds, or derivatives thereof.

6. Process according to any one of the preceding claims, characterized in that the concentration (C) of compaction agent does not lead to a rigidification of the DNA.

7. Process according to any one of the preceding claims, characterized in that step (a) of ligation of the insert and the vector in the presence of a DNA compaction agent is performed in a ligation medium constituted by a ligase and a corresponding buffer.

8. Process according to one of claims 1 to 7, characterized in that the ligase is *E. coli* T4 ligase.

9. Kit for the implementation of any one of claims 1 to 8, characterized in that it comprises:

– a ligase,

– a ligation buffer corresponding to the ligase,

– a compaction agent,

– possibly a stabilizing agent.

10. Kit according to claim 9, characterized in that:

– the ligase is *E. coli* T4 ligase,

– the corresponding ligation buffer,

– the compaction agent is a mixture of histones or an isolated histone,

– if present, the stabilizing agent is glycerol.

Gel A

1% agarose, 1-Kb marker (and/or f_x174) on the track(s) at right.

Gel B

FIGURE 3